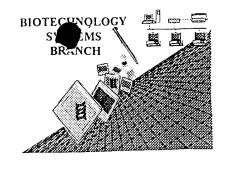
c. Wiers

RAW SEQUENCE LISTING ERROR REPORT



#13/2

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:	08/974,584A
Source:	1655
Date Processed by STIC:	3-19-01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 c-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 c-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (1887 TO). Use of Checker prior to filing the sequence listing is expected to result in fewer prior to filing the sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the blowing decress:

http://www.uspto.gov/web/offices/pac/checker

1655

Cher

 RAW SEQUENCE LISTING
 DATE: 03/19/2001

 PATENT APPLICATION:
 US/08/974,584A
 TIME: 10:11:47

Input Set : A:\-29-5us.app

Output Set: N:\CRF3\03192001\H974584A.raw

SEQUENCE LISTING

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4 (1) GENERAL INFORMATION:
             (i) APPLICANT: Cech, Thomas R.
                            Lingner, Joachim
                             Nakamura, Toru
      8
                             Chapman, Karen B.
                             Morin, Gregg B.
     1.0
     11
                             Harley, Calvin B.
     12
                             Andrews, William H.
            (ii) TITLE OF INVENTION: Telomerase Reverse Transcriptase
     14
           (iii) NUMBER OF SEQUENCES: 476
     16
            (iv) CORRESPONDENCE ADDRESS:
     18
     19
                  (A) ADDRESSEE: Townsend and Townsend and Crew LLP
                  (B) STREET: Two Embarcadero Center, Eighth Floor
     20
                  (C) CITY: San Francisco
     21
                  (D) STATE: California
     22
                  (E) COUNTRY: USA
                   (F) ZIP: 94111-3834
     24
             (V) COMPUTER READABLE FORM:
     26
                   (A) MEDIUM TYPE: Floppy disk
     27
                   (B) COMPUTER: IBM PC compatible
                  (C) OPERATING SYSTEM: PC-DOS/MS-DOS
     29
                   (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
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            (vi) CURRENT APPLICATION DATA:
     32
                   (A) APPLICATION NUMBER: US/08/974,584A
C--> 33
C--> 34
                   (B) FILING DATE: 19-Nov-1997
                   (C) CLASSIFICATION:
     35
           (Vii) PRIOR APPLICATION DATA:
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                   (A) APPLICATION NUMBER: US 08/724,643
     38
     39
                   (B) FILING DATE: 01-OCT-1996
     42
                   (A) APPLICATION NUMBER: US 08/844,419
                   (B) FILING DATE: 18-APR-1997
     43
                   (A) APPLICATION NUMBER: US 08/846,017
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                   (B) FILING DATE: 25-APR-1997
     47
                   (A) APPLICATION NUMBER: US 08/851,843
     50
                   (B) FILING DATE: 06-MAY-1997
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                   (A) APPLICATION NUMBER: US 08/854,050
                   (B) FILING DATE: 09-MAY-1997
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                   (A) APPLICATION NUMBER: US 08/911,312
     58
                  (B) FILING DATE: 14-AUG-1997
                   (A) APPLICATION NUMBER: US 08/912,951
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                   (B) FILING DATE: 14-AUG-1997
                   (A) APPLICATION NUMBER: US 08/915,503
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     67
                   (B) FILING DATE: 14-AUG-1997
                   (A) APPLICATION NUMBER: WO PCT/US97/17618
     71
                   (B) FILING DATE: 01-OCT-1997
                   (A) APPLICATION NUMBER: WO PCT/US97/17885
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Does Not Comply
Corrected Diskette Needed

See p.2

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DATE: 03/19/2001
                     RAW SEQUENCE LISTING
                     PATENT APPLICATION: US/08/974,584A
                                                                TIME: 10:11:47
                     Input Set : A:\-29-5us.app
                     Output Set: N:\CRF3\03192001\H974584A.raw
                  (B) FILING DATE: 01-OCT-1997
          (viii) ATTORNEY/AGENT INFORMATION:
    77
    78
                  (A) NAME: Einhorn, Gregory P.
                  (B) REGISTRATION NUMBER: 38,440
     79
                  (C) REFERENCE/DOCKET NUMBER: 015389-002950US
    80
            (ix) TELECOMMUNICATION INFORMATION:
    82
                  (A) TELEPHONE: (415) 576-0200
     83
    84
                  (B) TELEFAX: (415) 576-0300
ERRORED SEQUENCES
     5488 (2) INFORMATION FOR SEQ ID NO: 115: 5490 (i) SEQUENCE CHARACTERISTICS:
                    (A) LENGTH: 27 amino acids
     5491
                    (B) TYPE: amino acid
     5492
     5493
                    (C) STRANDEDNESS:
     5494
                    (D) TOPOLOGY: linear
                                                                       wrong seg i.d. number
115-?
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                    (A) NAME/KEY: Modified-site
                    (B) LOCATION: 18
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     (D) OTHER INFORMATION: /product= "OTHER"
5503 /note= "Xaa = hydrophobic amino acid,
     5504 selected from Ala, Leu, Ile, Val, Pro,
     5505 Phe, Trp or Met"
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     5512 selected from Ala, Leu, Ile, Val, Pro,
     5513 Phe, Trp or Met"
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E--> 5516
               Lys Xaa Tyr Xaa Gln Xaa Xaa Gly Ile Pro Gln Gly Ser Xaa Leu Ser
W--> 5518
                                5
                                                     10
     5519
               Xaa Xaa Leu Xaa Xaa Xaa Xaa Tyr Xaa Asp Leu
W--> 5521
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25

20

5522

 VERIFICATION SUMMARY
 DATE: 03/19/2001

 PATENT APPLICATION: US/08/974,584A
 TIME: 10:11:51

Input Set : A:\-29-5us.app

Output Set: N:\CRF3\03192001\H974584A.raw

L:33 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:] L:34 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:] L:744 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:747 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:750 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:753 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:756 M:341 W: (46) "n" or "Xaa" used, for SEQ 1D#:4 L:759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:765 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:768 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:771 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:774 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:777 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:780 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:783 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:789 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:792 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 $L\!:\!795$ M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:798 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:801 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4L:804 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:807 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:810 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:813 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 $L\colon\!819$ M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:822 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:825 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:828 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:831 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 $L\!:\!834$ M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:837 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:840 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:843 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:846 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:849 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:852 M:341 W: (46) "n" or "Xaa" used, for SEQ TD#:4 L:855 M:341 W: (46) "n" or "Xaa" used, for SEQ TD#:4 L:858 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:861 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:864 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:867 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:870 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:873 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:876 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:879 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

 VERIFICATION SUMMARY
 DATE: 03/19/2001

 PATENT APPLICATION: US/08/974,584A
 TIME: 10:11:51

Input Set : A:\-29-5us.app

Output Set: N:\CRF3\03192001\H974584A.raw

L:882 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:885 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:888 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:891 M:341 W: (46) "n" or "Xaa" used, for SEO 1D#:4 L:948 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=5, Value=[DNA] L:1598 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo-22, Value=[DNA] L:1729 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=28, Value=[DNA] L:1745 M:246 W: invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=29, Value=[DNA] L:1761 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=30, Value=[DNA] L:1777 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=31, Value=[DNA] L:1795 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=32, Value [DNA] L:1811 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=33, Value=[DNA] L:1827 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=34, Value=[DNA] L:1843 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo-35, Value-[DNA] L:1859 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo-36, Value=[DNA] L:1875 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=37, Value=[DNA] L:1891 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=38, Value=[DNA] L:1907 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=39, Value | DNA] L:1923 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SegNo=40, Value=[DNA] L:1939 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=41, Value=[DNA] L:1955 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=42, Value=[DNA] L:1971 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo-43, Value-[RNA] L:1987 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo-44, Value [DNA] L:2003 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:],. SeqNo=45, Value=[DNA] L: 2036 M: 246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=47, Value=[DNA] L:2052 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SegNo=48, Value=[DNA] L:2068 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLL:CULE TYPE:], SeqNo=49, Value=[DNA] L:2084 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=50, Value=[DNA] L:3080 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo-56, Value-[DNA] L:3096 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=57, Value=[DNA] L:3158 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=60, Value=[DNA] L:3207 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=61, Value=[DNA] L:3669 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68 L:3681 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68 L:3705 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68 L:3709 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68L:3789 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68 L:3805 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68 L:3809 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68 L:3841 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68 L:3901 M:361 W: Invalid Split Codon, Sequence data for SEQ TD#: 68 L:3905 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68 L:3913 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68 L:3917 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68 L:4171 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=70, Value-[DNA] L:4212 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo-72, Value=[DNA] L:4252 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo-74, Value=[DNA] L:4292 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=76, Value=[DNA] L:4325 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=78, Value=[DNA]
 VERIFICATION SUMMARY
 DATE: 03/19/2001

 PATENT APPLICATION: US/08/974,584A
 TIME: 10:11:51

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